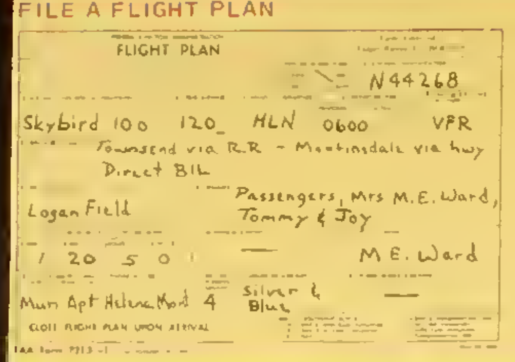
Radio and Aeronautical Information

FILE A FLIGHT PLAN



FLIGHT PLAN

N44268

Skybird 100 | 120 | HLN | 0600 | VFR

Townsend via R.R. – Martinsdale via hwy

Direct BIL

Logan Field

Passengers, Mrs M.E. Ward, Tommy & Joy

1 | 20 | 5 | 0

M E. Ward

Mun Apt Helena Mont | 4 | Silver & Blue

CLOSE FLIGHT PLAN UPON ARRIVAL

FAA Form 7233-1

1. Type of Flight Plan
2. Aircraft Identification
3. Aircraft Type/Special Equipment
4. True Airspeed
5. Point of Departure
6. Departure Time (Proposed and Actual)
7. Initial Cruising Altitude
8. Route of Flight
9. Destination (Name of Airport and City)
10. Remarks
11. Estimated Time Enroute (Hrs & Min)
12. Fuel on Board (Hrs and Minutes)
13. Alternate Airport(s)
14. Pilot's Name
15. Pilot's Address Tele. No. & Home Base
16. No. of Persons Aboard
17. Color of Aircraft
18. Flight Watch Stations (Contact)

REQUIREMENTS FOR USE OF MONTANA PILOT FLIGHT PLAN

1. All Pilots must be registered and have a Montana registration number
2. If not able to file by radio, pilots at Non Flight Service Station points in Montana are authorized to call Flight Service Station Point Collect to file or close Flight Plan
3. No calls will be accepted from a point served by the Federal Aviation Administration Flight Service Station
4. No restrictions are placed on either Private or Commercial Flights
5. Only Montana Flight Service Stations which hold credit cards will accept calls
6. Federal Aviation Administration Flight Service Station will accept only calls for filing or closing flight plans
7. Pilot at non-Flight Service Station Airport places Collect phone call to nearest Flight Service Station stating 'This is a collect call-Montana Pilot Flight Plan'
8. Please avoid calling during weather broadcast

CRUISING ALTITUDE RULES

ALTIMETER SETTINGS

BELOW 18,000 FT MSL use station altimeter setting (current)

AT OR ABOVE 18,000 FT MSL use standard altimeter setting (29.92 HG)

CRUISING ALTITUDES FLIGHT LEVELS

1. VFR altitudes or flight levels become effective above 3,000 ft AGL
2. IFR in controlled airspace maintain altitudes or flight levels assigned by ATC
3. IFR altitudes or flight levels in uncontrolled airspace are effective from surface upward
4. Continental control area is controlled airspace at and above 14,500 ft excluding the airspace less than 1,500 ft above the surface of the earth
5. Positive control area is controlled airspace from FL 240 up to and including FL 600. IFR FLIGHT PLAN, TRANSPONDER and 2 WAY RADIO REQUIRED WITHIN THIS AREA

NOTE Over portions of the north east and north central U.S. including northern Montana, Positive Control Area has been lowered from FL 240 to 18,000' MSL

For complete information refer to Federal Aviation Regulations 71.9, 71.15, 91.109 and 91.121

VISUAL FLIGHT RULES

§91.105 BASIC VFR WEATHER MINIMUMS

(a) DISTANCE FROM CLOUDS Except as provided in §91.107, no person may operate an aircraft under VFR -

1. Within controlled airspace at 1200 feet or less above the surface regardless of MSL altitude, or more than 1200 feet above the surface but less than 10,000 feet MSL at a distance less than 500 feet below, 1000 feet above or 2000 feet horizontally from clouds
2. Within a control zone beneath the ceiling when the ceiling is less than 1000 feet
3. Outside controlled airspace at 1200 feet or less above the surface, regardless of MSL altitude, clear of clouds
4. Outside controlled airspace more than 1200 feet above the surface but less than 10,000 feet MSL at a distance less than 500 feet below, 1000 feet above or 2000 feet horizontally from clouds
5. When more than 1200 feet above the surface and at or above 10,000 feet MSL at a distance less than 1000 feet below, 1000 feet above or 1 mile horizontally from clouds

(b) FLIGHT VISIBILITY Except as provided in §91.107 no person may operate an aircraft under VFR [illegible]

[illegible]

§91.107 SPECIAL VFR WEATHER MINIMUMS

[illegible]

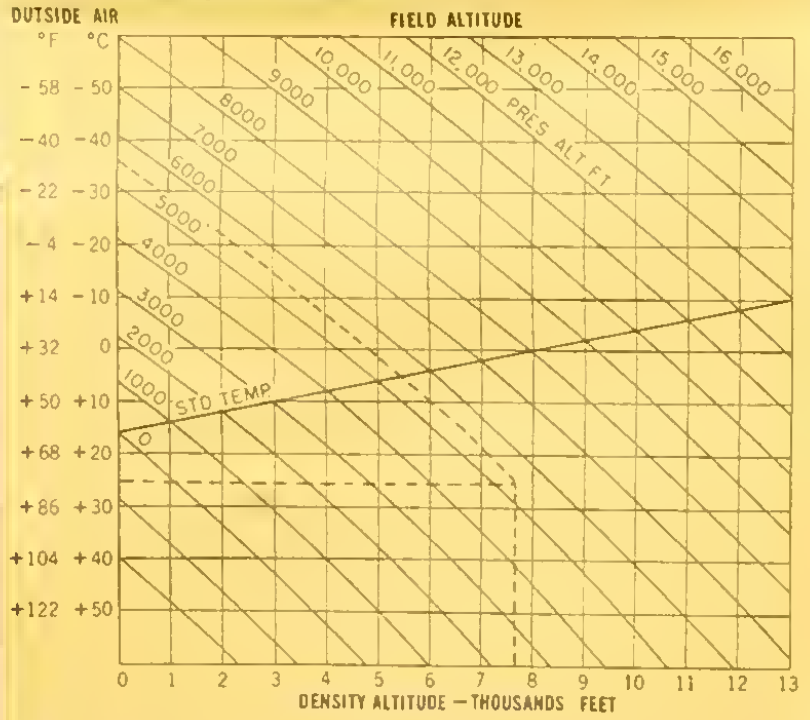
FAA FLIGHT SERVICE STATIONS

Billings ---------- 259-4545
Bozeman ---------- 388-4242
Butte ---------- 723-3004
Cut Bank ---------- 938-4522
Dillon ---------- 761-7110
Great Falls ---------- 452-6495
Helena ---------- 442-9902
Lewistown ---------- 538-3639
Livingston ---------- 222-2411
Miles City ---------- 232-1503
Missoula ---------- 542-2230

OPERATIONAL ALTITUDE CHART

LEARN TO USE THIS CHART — POST IN PLANE

Operational altitude is the calculated altitude of the air at which the aircraft is flown. Aircraft operation, as a result, may be at an altitude greater or less than the actual altitude above Sea Level

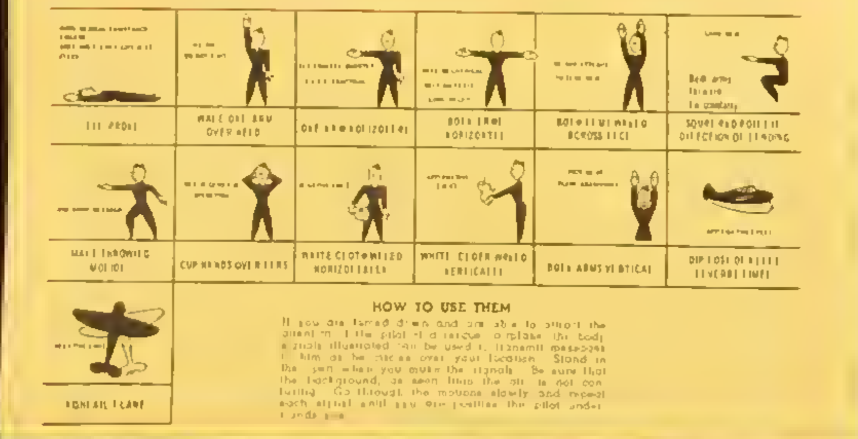


The following example illustrates the simple use of this chart to determine the conditions of the airport you plan to use. Select the actual altitude of the airport to be used on the diagonal lines marked 'Field Altitude' (Example 5500 ft). Next, select the temperature. Example 77°F. Follow the temperature line to the right until it crosses the diagonal line Field Altitude. From the point where these two lines cross, follow a line to the bottom of the chart and obtain the operational or density altitude. Example 7700 ft.

WEATHER SERVICE STATIONS

Billings-
Logan Field ---------- 259-4545
Glasgow Int'l ---------- 228-4042
Great Falls Int'l ---------- 761-7110
Havre ---------- 265-6424
Helena ---------- 442-8260
Kalispell ---------- 756-4829
Missoula-
Missoula City ---------- 542-2230

EMERGENCY SIGNALS -- GROUND TO AIR



HOW TO USE THEM

If you are forced down and are able to attract the attention of the pilot of a rescue airplane, the body signals illustrated can be used to transmit messages to him as he circles over your location. Stand in the open when you make the signals. Be sure that the background, as seen from the air, is not confusing. Go through the motions slowly and repeat each signal until you are positive the pilot understands you.

AIRMARKED LOOKOUT TOWERS

Numbered towers on this map are airmarked. Most towers are manned during periods of fire danger only

NO	NAME	LAT.	LONG.	NO	NAME	LAT.	LONG
6	THOMA	48-58	114-33	172	COONEY	47-32	113-38
23	WEBB MTN	48-49	116-22	178	PATROL MTN	47-27	112-54
29	SWIFT CURRENT	48-48	113-45	182	ELBOW	47-24	113-44
33	MOUNT MARSTON	48-46	114-48	184	JUMBO	47-23	113-07
37	CYCLONE	48-44	114-19	191	UP UP MTN	47-20	115-20
38	MT RODERICK	48-42	115-47	197	STEAMBOAT	47-18	112-38
47	BIG CREEK BALDY	48-38	116-35	199	LITTLE JOE	47-17	115-11
48	PINKHAM MTN	48-38	116-07	211	FALLS POINT	47-12	112-54
51	MT BROWN	48-38	113-50	214	THOMPSON PK	47-11	114-54
56	WERNER	48-38	114-30	218	DOUBLE ARROW	47-10	113-32
68	NINEMILE	48-30	114-09	224	STARK MTN	47-08	114-34
72	WHITEFISH	48-28	114-20	229	LANDOWNER MTN	47-02	114-56
74	LONEMAN PK	48-28	113-45	234	WILLIAMS PK	46-58	114-44
77	JOHNSON PK	48-27	114-41	236	MINERAL MTN	47-00	113-50
78	DESERT	48-26	113-58	237	MONUMENT	47-00	111-08
80	HORSE MTN	48-21	114-58	239	HUNTER	46-56	113-25
86	ASHLEY	48-17	114-42	245	WILLIAMS MTN	46-54	110-59
87	FIREFIGHTER	48-20	113-53	246	DALTON MTN	46-52	112-43
88	HALF DOME	48-17	113-04	247	GRANITE BUTTE	46-52	112-35
104	CALX MTN	48-13	116-09	248	PORPHYRY PK	46-51	110-45
110	PIONEER	48-10	113-49	251	UNION	46-48	113-24
111	RED PLUME	48-09	113-18	252	SDOBACK	46-50	111-43
112	McCAFFERY	48-07	114-04	253	WHITE MTN	46-47	114-39
126	CRANE	47-59	113-58	255	WESTFORK BUTTE	46-44	114-25
127	SIX MILE	48-00	113-51	265	SLIDE ROCK	46-36	113-34
128	KAH	47-59	113-39	267	ST MARIES PK	46-31	114-14
131	GEM	47-55	115-55	268	COLORADO	46-30	112-12
134	MISSION	47-54	113-51	272	BLACK PINE	46-25	113-27
135	SPOTTED BEAR	47-54	113-27	279	CABLE MTN	46-13	113-12
139	RICHARD	47-50	115-04	280	HAYSTACK MTN	46-08	112-18
154	BEAR TOP	47-48	112-52	291	BENDER	45-47	113-43
156	SEX PK	47-44	115-40	292	HIGHLAND	45-46	112-31
160	PRISCILLA PK	47-42	115-10	293	BARE CONE	45-43	114-26
162	MUD LAKE	47-38	113-18	300	THUNDER MTN	45-34	114-17
163	DRIVEWAY	47-35	115-35	301	ODELL	45-34	113-14
165	BALDY	47-35	114-50	307	POKER JIM BUTTE	45-20	106-22
166	JIM CREEK	47-36	113-50	310	HORSE BUTTE	44-44	111-12
169	CLARK	47-33	115-19	312	CINNAMON	45-08	111-14

COMMERCIAL BROADCAST STATIONS

Airport Location	Radio Call	Hours of Operation	Freq. (KHz)	Power (KW)	Airport Location	Radio Call	Hours of Operation	Freq. (KHz)	Power (KW)
Anaconda	KANA	Days	580	1.00	Hamilton	KLYQ	Days	980	1.00
Baker	KFLN	Days	960	5.00	Hardin	KHDN	Days	1230	1.00
Belgrade	KGVW	Days	630	1.00	Havre	KOJM	Continuous	610	1.00
Billings	KBMY	Continuous	1240	1.00	Helena	KCAP	Continuous	1340	1.00
Billings	KOOK	Continuous	970	5.00	Helena	KBLL	Continuous	1240	1.00
Billings	KOYN	Days	910	1.00	Kalispell	KOFI	Continuous	1180	10.00
Billings	KURL	Days	730	.50	Kalispell	KGEZ	Limited	600	1.00
Billings	KGHL	Continuous	790	5.00	Lewistown	KXLO	Continuous	1230	1.00
Bozeman	KXLQ	Continuous	1450	1.00	Libby	KLCB	Continuous	1230	1.00
Bozeman	KBMN	Continuous	1230	1.00	Livingston	KPRK	Continuous	1340	1.00
Butte	KBOW	Continuous	550	5.00	Miles City	KATL	Continuous	1340	1.00
Butte	KXLF	Continuous	1370	5.00	Missoula	KYLT	Continuous	1340	.25
Deer Lodge	KDRG	Days	1400	.25	Missoula	KYSS	Days	930	1.00
Dillon	KDBM	Continuous	1490	1.00	Missoula	KGMI	Continuous	1450	.25
Glasgow	KLTZ	Continuous	1240	1.00	Missoula	KGVO	Continuous	1290	5.00
Glendive	KXGN	Continuous	1400	.25	Red Lodge	KRBN	Limited	1450	1.00
Glendive	KGLE	Days	590	.50	Shelby	KSEN	Continuous	1150	1.00
Great Falls	KARR	Continuous	1400	1.00	Sidney	KGCX	Continuous	1480	5.00
Great Falls	KXGF	Days	1310	5.00	West Yellowstone	KWYS	Days	920	1.00
Great Falls	KUDI	Continuous	1450	1.00	Wolf Point	KVCK	Continuous	1450	1.00
Great Falls	KMON	Continuous	560	5.00					

MORSE CODE AND PHONETIC ALPHABET

Alfa .–	Golf ––.	Mike ––	Sierra ...	Yankee –.––	5 .....
Bravo –...	Hotel	November –.	Tango –	Zulu ––..	6 –....
Charlie –.–.	India ..	Oscar –––	Uniform ..–	1 .––––	7 ––...
Delta –..	Juliett .–––	Papa .––.	Victor ...–	2 ..–––	8 –––..
Echo .	Kilo –.–	Quebec ––.–	Whiskey .––	3 ...––	9 ––––.
Foxtrot ..–.	Lima .–..	Romeo .–.	Xray –..–	4 ....–	0 –––––

KEY TO AVIATION WEATHER REPORTS

LOCATION IDENTIFIER AND TYPE OF REPORT / SKY AND CEILING / VISIBILITY WEATHER AND OBSTRUCTION TO VISION / SEA LEVEL PRESSURE / TEMPERATURE AND DEW POINT / WIND / ALTIMETER SETTING / RUNWAY VISUAL RANGE / CODED PIREPS

HLN |15⦶M25⊕|4R-K |132 |/58/56 |/1807 |/993/ |R04LVR20V40 |/⊕55

SKY AND CEILING

Sky cover symbols are in ascending order. Figures preceding symbols are heights in hundreds of feet above station.

Sky cover Symbols are

- ○ Clear. Less than 0.1 sky cover.
- ⦶ Scattered 0.1 to less than 0.6 sky cover.
- ◑ Broken 0.6 to 0.9 sky cover.
- ⊕ Overcast More than 0.9 sky cover.
- - Thin (When prefixed to the above symbols.)
- -X Partial Obscuration 0.1 to less than 1.0 sky hidden by precipitation or obstruction to vision (bases at surface).
- X Obscuration 1.0 sky hidden by precipitation or obstruction to vision (bases at surface).

Letter preceding height of layer identifies ceiling layer and indicates how ceiling height was obtained. Thus

- A Aircraft
- B Balloon (Pilot, ceiling or radiosond).
- E Estimated
- M Measured
- R Radar
- W Indefinite
- "V" Immediately following numerical value indicates a varying ceiling.

VISIBILITY

Reported in Statute Miles and Fractions. (V = Variable)

WEATHER SYMBOLS

A	Hail	L	Drizzle	SP	Snow Pellets
IC	Ice Crystals	R	Rain	SW	Snow Showers
IP	Ice Pellets	RW	Rain Showers	T	Thunderstorm
IPW	Ice Pellet Showers	S	Snow	ZL	Freezing Drizzle
		SG	Snow Grains	ZR	Freezing Rain

PRECIPITATION INTENSITIES are indicated thus

-- Very light - Light (no sign) Moderate + Heavy

OBSTRUCTION TO VISION SYMBOLS

D	Dust	H	Haze	BD	Blowing Dust
F	Fog	IF	Ice Fog	BN	Blowing Sand
GF	Ground Fog	K	Smoke	BS	Blowing Snow

WIND

Direction in ten's of degrees from true north, speed in knots. 0000 indicates calm. G indicates gusty. Peak speed follows G or Q when gusts or squalls are reported. The contraction WSHFT followed by the time (GMT) in remarks indicates windshift and its time of occurrence.

(Kts. x 1.15 = statute mi/hr.)

EXAMPLES 3627 360 Degrees, 27 Knots.
3627G40 360 Degrees, 27 Knots. Peak speed in gusts, 40 Knots.

ALTIMETER SETTING

The first figure of the actual altimeter setting is always omitted from the report.

RUNWAY VISUAL RANGE (RVR)

RVR is reported from some stations. Extreme values for 10 minutes prior to observation are given in hundreds of feet. Runway identification precedes RVP report.

CODED PIREPS

Pilot reports of clouds not visible from ground are coded with MSL height data preceding and/or following sky cover symbol to indicate cloud bases and/or tops, respectively.

DECODED REPORT

Helena Record observation, 1500 feet scattered clouds, measured ceiling 2500 feet overcast, visibility 4 miles, light rain, smoke, sea level pressure 1013.2 millibars, temperature 58°F, dewpoint 56°F, wind 180°, 7 knots, altimeter setting 29.93 inches. Runway 04 left, visual range 2000 ft. variable to 4000. Pilot reports top of overcast 5500 feet MSL.

*TYPE OF REPORT

The omission of type of report data identifies a scheduled record observation for the hour specified in the sequence heading, the time of an out of sequence, special observation is given as 'S' followed by a time group (24 hour clock GMT) e.g., 'PH S0715 XM⊕..' A special indicates a significant change in one or more elements. Local reports are identified by 'LCL' and a time group. Locals are transmitted on local teletype writer circuit only.

KEY TO AVIATION WEATHER FORECASTS

TERMINAL FORECASTS contain information for specific airports on ceiling, cloud heights, cloud amounts, visibility, weather condition and surface wind. They are written in a form similar to the AVIATION WEATHER REPORT.

CEILING Identified by the letter 'C'

CLOUD HEIGHTS In hundreds of feet above the station (ground).

CLOUD LAYERS Stated in ascending order of height

VISIBILITY In statute miles, but omitted if over 8 miles

SURFACE WIND In tens of degrees and knots, omitted when less than 10.

Examples of TERMINAL FORECASTS

C15◑ - Ceiling 1500', broken clouds.

20⦶C70⊕6K 3230G - Scattered clouds at 2000', ceiling 7000' overcast, visibility 6 miles smoke, surface wind 320 degrees 30 knots, gusty.

O1½GF - Clear, visibility one and one half miles, ground fog.

C5X¼S - Sky obscured, vertical visibility 500', visibility one-fourth mile, moderate snow.

AREA FORECASTS are 12-hour forecasts plus 12 hour OUTLOOKS (18-hour outlook in FA's old of 1300Z) of cloud, weather and frontal conditions for an area the size of several states. Heights of cloud tops, icing, and turbulence are ABOVE SEA LEVEL (ASL); ceiling heights, ABOVE GROUND LEVEL (AGL); bases of cloud layers are ASL unless indicated. Area Forecasts are amended by SIGMET's or AIRMET's

SIGMET or AIRMET warns airmen in flight of potentially hazardous weather such as squall lines, thunderstorms, fog, icing, and turbulence. SIGMET concerns severe and extreme conditions of importance to all aircraft. AIRMET concerns less severe conditions which may be hazardous to some aircraft or to relatively inexperienced pilots. Both are broadcast by FAA on NAVAID voice channels

WINDS AND TEMPERATURES ALOFT (FD) FORECASTS are computer prepared forecasts of wind direction (nearest 10° true N) and speed (knots) for selected flight levels. Temperatures are forecast for all levels shown except that no forecasts are issued for the 3000 ft level or other levels within 2500 feet of a station's elevation. To decode forecast winds of 100 to 199 knots, subtract 50 from the direction and add 100 to the speed. For example, 7545 would read 250 degrees 145 knots

EXAMPLES OF WINDS AND TEMPERATURES ALOFT (FD) FORECASTS

[illegible]

PILOTS report in-flight weather to nearest FSS.

Fly the Big Sky Country all year 'round!

MONTANA

Put down in Montana and surround yourself with the beauty of this unspoiled land where year around activities blend with western hospitality. You're never far from the action when you land under the Big Sky of Montana.

Pick a port near a dude ranch, a ski resort or hunting lodge. Fly in to an unforgettable tour of Yellowstone Park, Glacier Park, or any of the modern municipal airports in the land between the parks.

The clean, crisp air invites exploration of wilderness areas by pack trips, or poke among the many gold rush ghost towns. Miles of blue ribbon trout streams, countless mountain lakes, and swift rivers welcome fishermen. Montana, the nation's gamekeeper, provides the great thrills big game hunters dream of.

It's all here for you in Montana. Fly the Big Sky Country all year 'round.

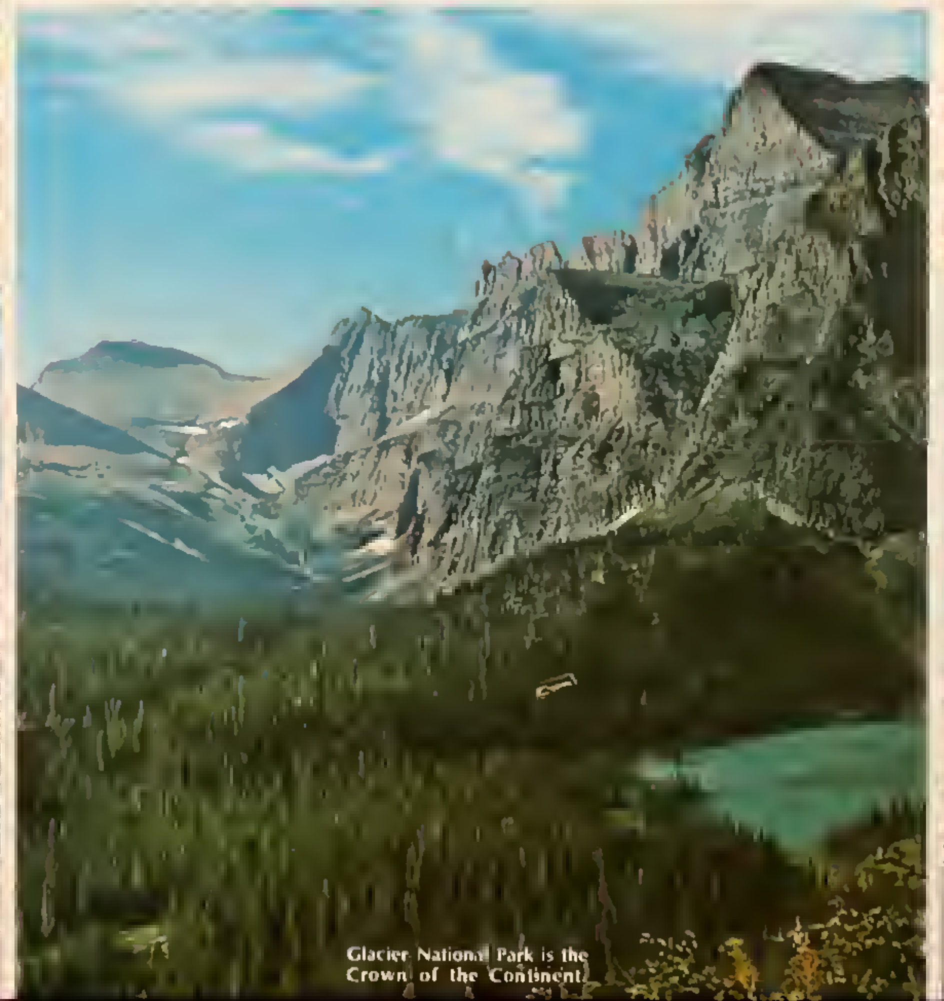
Montana's Big Sky Country is a pilot's paradise.

Jetport at West Entrance to Yellowstone National Park.

There are 90 Montana ghost towns waiting to be explored.

Montana boasts 4,000 miles of fishing rivers and streams.

Montana is a "something-for-everyone" vacationland.



Glacier National Park is the Crown of the Continent.

Light aircraft are invaluable to farmers and ranchers.

Big Mountain offers great powder skiing on uncrowded slopes.

Montana's rugged back country provides excellent hunting.

Modern airports are nearby top vacation attractions.

MONTANA AERONAUTICAL CHART

[illegible] MONTANA AERONAUTICS COMMISSION • Helena, Montana

Fly the Big Sky Country...

MONTANA

STATE DOCUMENTS
MONTANA STATE LIBRARY
HELENA

MONTANA AERONAUTICS COMMISSION
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Permit No 3

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3 0864 1006 7641 3

Makoshika State Park

We certainly hope this map will assist you in many safe flights over the magnificent expanse of Montana.

I welcome you to the state and encourage you to stay awhile to explore Montana's amazing array of scenic and recreational areas.

You will find modern airports, beautiful scenery, fish in clear streams, great snow on the ski slopes, comfortable accommodations and the friendliest people in the West.

Again, welcome and good flying!

FORREST H. ANDERSON, GOVERNOR
STATE OF MONTANA

WILLIAM E. HUNT, DIRECTOR
AERONAUTICS COMMISSION

MONTANA AERONAUTICS COMMISSION

OFFICERS

[illegible]

MEMBERS

[illegible]

MONTANA AERONAUTICAL CHART